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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,752	03/10/2004	Eric W. Kramer	102.117	6430

7590 03/21/2006

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EXAMINER

NGUYEN, HOA CAO

ART UNIT	PAPER NUMBER
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2841

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,752

Applicant(s)

KRAMER ET AL.

Examiner

Hoa C. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2 PAGES</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11 rejected under 35 U.S.C. 102(b) as being anticipated by Komai (US 6017241).

Regarding claim 1, as disclose in figures 1-10, Komai discloses an LED module comprising:

(a) A circuit board 13/113 (a top section, a cover having LED circuit formed thereon, column 3, lines 11-12 and column 4, lines 37-39) secured to a base 15/115 (column 3, lines 6-7 and column 4, lines 37-38) containing at least two electrical leads 73/75 (wires that has conductor section inside, column 4, lines 57-58);

(b) the circuit board having an LED 77/114 (column 4, lines 23 and column 5, lines 12-13) and at least two contact teeth 121/123/67 (column 4, line 61 and line 15) whereby each contact tooth makes electrical contact with one of the at least two electrical leads.

Regarding claim 2, Komai discloses the at least two electrical leads comprising a non-conductive sheath and where each contact tooth pierces the non-conductive

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sheath to make electrical contact with one of the at least two electrical leads (column 4, lines 15-17 and lines 64-67).

Regarding claim 3, Komai discloses a gasket 66 (mating under surface, column 3, lines 32-34) with a thickness covers a side of the circuit board and where the at least two contact teeth traverse the thickness of the gasket to make electrical contact with the at least two electrical leads.

Regarding claim 4, Komai discloses the base further comprising a set of snap tabs 35 (an engagement means - snap off means - ears 35, column 3, lines 35-42), whereby the circuit board is secured to the base by snapping the circuit board onto the base by the set of snap tabs (also see Komai, claims 1 and 10).

Regarding claim 5, every circuit board is coated with protective sealant (epoxy resin for example) and is conventionally known. Therefore, Komai anticipates the claim.

Regarding claim 6, Kosai discloses every limitation as shown in claims 1 and 2 above including the teeth that are sufficiently shape to pierce through the non-conductive sheath (column 4, lines 65-66).

Regarding claims 7-8, Komai discloses every limitation as shown in claims 3-4 above.

Regarding claim 9, Komai discloses the base has two open ends (no number, see figures 1 and 6) and where at least two electrical leads can be feed through the open ends.

Regarding claims 10-11, Komai discloses every limitation as shown in claims 1, 4, 9 and 3 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komai (US 6017241).

Komai discloses every limitation as shown in claim 10; except the circuit board does not comprise a first support length and a second support length; where the first support length differs in length from the second support length; and where the set of snap tabs further comprise a first set of snap tabs separated by a first distance corresponding to the first support length and a second set of snap tabs separated by a second distance corresponding to the second support length.

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It is noticed that Komai teaches a structure centering about an LED module which can clamp a pair of electrical wire in between a top and bottom section of the structure and that the structure contains pins/teeth/spikes that pierce through the wire to make electrical contact with the conductor section of the wire.

Komai further teaches that in order to close the top and the bottom section, a hinge structure (combining with a set of snap tabs) or other structure can be applied as soon as the top section and the bottom section can be closed or clamped together, see column 3, lines 4-16.

Komai further teaches that a hinge structure formed on one side and a snap set formed on an opposite side (figures 2 and 6) as a preferred structure to close the top and the bottom. In other words, Komai discloses a structure having both hinge devices and snap tab devices formed thereon.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form snap tabs on both side of the Komai's LED module instead of snap tabs on one side and then hinge devices on the other side in order to save manufacturing time and cost by eliminating the installation time of the hinge devices. Furthermore, in order to use the snap tab structure, it is inherently that the structure of the top section must comprise a first support length and a second support length; where the first support length differs in length from the second support length; and where the set of snap tabs must also comprise a first set of snap tabs separated by a first distance corresponding to the first support length and a second set of snap tabs separated by a

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second distance corresponding to the second support length in order to guide a user to snap the top and bottom section together in a correct way.

It is further noticed that the applicants do not disclose any advantage of the modification(s) over the prior reference art except to provide a user a mean to install the circuit board on the base with proper polarity. This advantage is also clearly disclosed by Komai in the preferred embodiments (figure 1 and 6), in which Komai provides hinges 31, 33, 141, 143 formed on at least one side of the structure and that clearly solve polarity matter. Therefore, in modifying the Komai' module, the polarity matter must be kept.

Citation of Relevant Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Serizawa et al. (US 6406173) disclose a vehicle lamp having light-emitting elements with connecting structure.

Marcus (US 6837598) discloses a lighting device.

Tsuruzono (US 5330368) discloses an apparatus for lighting baseless bulbs.

Gossmann (US 6551124) discloses a contacting device for a flat band cable.

Hatton (US 6544068) discloses a paperless picking system.

Caldwell (US 6386901) discloses a piercing pin structure and attachment for higher density ribbon cable.

Hatton (US 20030207609) discloses a paperless picking system.

Savage (US 5944463) discloses a clamp connection of electrical wiring and electrical lead structure.

Kramer et al. (US 20050201091) disclose a flexible surface lighting system with replaceable led module.

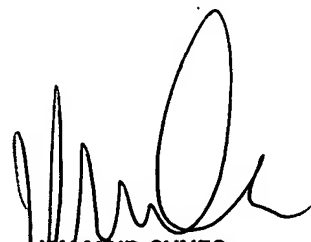
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa C. Nguyen whose telephone number is 571-272-8293. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa C. Nguyen
3/15/06


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